

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL claims 6 and 11-15, and AMEND claims 1, 4 and 7 in accordance with the following:

1. (Currently Amended) A method of surface-mounting semiconductor chips on a PCB, including mounting a flip chip type semiconductor chip on the PCB mounted with electronic components, ~~comprising~~consisting essentially of:

forming a solder bump on a conductive contact area of each semiconductor chip on a back of a semiconductor wafer mounted with a plurality of semiconductor chips;

injecting underfill material on the area of the semiconductor wafer formed with the solder bump;

hardening the underfill material partially to have a cohesive property;

severing the semiconductor wafer into the plurality of the semiconductor chips;

arranging the severed semiconductor chips having the hardened underfill material on the PCB; and

heating the PCB at a predetermined temperature.

2. (Original) The surface-mounting method of the semiconductor chip on the PCB according to claim 1, wherein the predetermined heating temperature is above the temperature of a melting point of the solder bump.

3. (Original) The surface-mounting method of the semiconductor chip on the PCB according to claim 2, wherein the underfill material is solidified during the heating.

4. (Currently Amended) A process of preparing a wafer to be used for surface mounting a semiconductor chip on a PCB ~~comprising~~consisting essentially of:

forming a plurality of solder balls on a surface of a semiconductor wafer;
coating the surface of the semiconductor wafer formed with the solder balls with underfill material;

curing the underfill material to achieve a semisolid state;

severing the semiconductor wafer into a plurality of semiconductor chips;

arranging the plurality of semiconductor chips on the PCB; and

raising the temperature of the PCB to a predetermined temperature,

wherein a temperature to cure the underfill material to a semisolid state is lower than a reflow temperature of the solder balls.

5-6. (Cancelled)

7. (Currently Amended) The process of preparing a wafer to be used for surface mounting a semiconductor chip on a PCB as in claim 6~~4~~, wherein the predetermined temperature is above the reflow temperature of the solder balls.

8. (Original) The process of preparing a wafer to be used for surface mounting a semiconductor chip on a PCB as in claim 7, wherein the underfill is cured to a solid state at the predetermined temperature.

9. (Original) The process of preparing a wafer to be used for surface mounting a semiconductor chip on a PCB as in claim 4, wherein the height of the underfill coating is approximately equal to the height of the solder balls.

10. (Original) The process of preparing a wafer to be used for surface mounting a semiconductor chip on a PCB as in claim 4, wherein the height of the underfill coating is above the height of the solder balls.

11-15. (Cancelled)